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## Original Lectures.

### *THERAPEUTICS OF LITHÆMIA.—CHAMOMILLA.*

A LECTURE DELIVERED IN THE COURSE ON THE PRACTICE OF MEDICINE IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF CHICAGO, BY C. E. LANING, M. D., PROFESSOR, ETC.

Before proceeding to the study of the symptoms which indicate this remedy in lithæmia, let me refer to a few points which should always govern us in the selection of a remedy. Under Bryonia and Antimonium crudum you remember the mental symptoms were those indicating irritability; you will find that Chamomilla also has these symptoms in a marked degree. While not expressed in the same language, the symptoms under each of the remedies mentioned are very similar in character, and it so happens that they are strong indications for each remedy. But, while in this case this is true, other remedies will be found in which, while the mental symptoms may seem well marked, they nevertheless do not have the significance which they do in these three remedies. That we may clearly understand this, let us look a little further into the action of remedies and disease. In almost all diseases there are certain symptoms which are characteristic not to say pathognomonic of them; further, nearly every disease is ushered in, in a certain way, *id est*, pneumonia, pleurisy, etc., with more or less decided chills. This goes to show that the first nervous centres involved in either disease are usually the same, *i. e.* the morbific agents which are capable of producing pneumonia or pleurisy, exert a special and primary action upon the centres which give rise to chill or chills. Looking at the action of remedies from the same

standpoint, we observe that a given drug during its proving always affects certain centres in a certain way; and moreover of the centres involved some are always more powerfully affected than others, and some always affected first, others secondly, and so on. By careful observation and comparison, we learn what centres are usually first deranged by a drug, and which are the most powerfully or decidedly affected. When, therefore, a disease is developing, or in case it has fully developed before we are called to treat it, we should carefully note the order, manner and degree in which the different structures are affected. Then not merely select a remedy which corresponds fairly well to the symptoms in the case but one which in its proving has been shown to attack the organism in the order and manner of the disease. I have already stated that some drugs act more decidedly and certainly upon special centres or tissues than do others. In prescribing this must be borne in mind, and if, as in the case of the remedies already studied, the mental symptoms which are common to them all are known to be more pronounced, and more frequently produced under the action of one than the other, all things being equal, we must give that remedy the choice. Remember the point I am about to mention, and impress it well upon your minds for the lack of a knowledge of it is the rock upon which many otherwise excellent prescribers have split. Here it is in a few words. *Very similar indeed often identical symptoms are produced by very different causes.*

This may seem at first hearing to be a very simple statement, and one not fraught with much meaning, but a careful study of its import will, I am sure, convince you to the contrary. An illustration or two may serve to make my meaning more plain, and impress its importance more decidedly upon your minds. Suppose, for example, we take the action of the heart under various conditions. If a patient should come to you in whom, as a prominent symptom, you observed a slow and irregular action of the heart, where would you look for the cause of this abnormal condition? It might be due to lithæmia, and if so, because the bile acids which we have so carefully studied were in the blood in sufficient quantities to produce their characteristic effect upon the ganglia of Remak, or the cardiac ganglia, those little ganglia which lie within the walls of the cardiac muscle, and which, when irritated, exert an inhibiting influence upon the heart, or which, if thrown into a state of paresis, cause the heart's pulsations to greatly increase as a result of their inhibitory influence being removed. A central irritation of the vagus

would affect the heart in the same way, and this irritation might in turn be due to an hyperæmia of the nuclei of the vagus itself, or an irritation of them indirectly as a result of an aneurism or thrombsis of some of the vessels of the floor of the fourth ventricle, or again, it may result from the pressure due to effusion into the ventricle or the pressure of a tumor in the adjacent brain structure. And yet, still other causes may be found for the decreased action of the heart, thus certain gastric disturbances may so affect the pneumo-gastric in a reflex way as to cause an inhibitory action upon the heart, or still farther, lesions of the intestines, lungs or bronchial mucous membrane may produce the same result. And all the causes have not been exhausted yet, for certain lesions of the cervical sympathetic or of the clio-spinal centre in the cervico-dorsal portion of the cord, may produce it.

This may at first seem confusing rather than otherwise, but when you have made yourselves familar with the causes of various symptoms, and the remedies which produce said symptoms, some in one way, some in another, you will have prepared yourselves for the practice of medicine in a manner which will insure you much greater and more frequent success than will be possible for you to attain if you have simply mastered the rudiments of therapeutics in a parrot-like way.

This may seem to you a tedious preface to the study of Chamomilla, but it has not merely a bearing upon that remedy, but is applicable to all others.

Under Chamomilla we find the mental symptoms are well marked and characteristic, and furthermore that they are often among the first noted in cases of hepatic disease calling for this remedy. The patient will tell you, if an intelligent adult, that for days, and perhaps weeks, before he realized he was sick, or called a physician, he noticed that he was irritable and easily annoyed, inclined to be vehement and easily excited. He may have so controlled himself that his nearest friends did not observe his mental state; or they may have noticed that Jones was a little "cranky" of late, I assure you that such apparently small things are often of the greatest importance, and in prescribing for a patient, if you commence your inquiries with the present, simple asking How are you *now*? How do you feel at the present moment? you will make more blunders than correct prescriptions.

This form of impatience, which is sometimes restrained in the most refined people only by the greatest effort, I have noticed more than once in those suffering from ailments calling

for Chamomilla. Not long ago, I had a patient, a lady, in whom this symptom was strongly developed, but who, nevertheless, had such self-control that I should not have discovered it had she not unmasked it herself. I had about finished taking the case, when she said, in a much more vehement tone than she had before used, apparently having restrained herself as long as possible: "Oh! Doctor, I do wish you would give me something to make me less irritable; everything annoys me so, and it just seems as if I couldn't stand it." "Really, to be frank," she continued, "it did seem as if you would never get done asking questions, and I thought I should just have to scream at you." This, and more of the same nature, when taken in connection with the other symptoms, made a clear case for Chamomilla, which soon made her better natured as well as better in every way. Let me repeat and emphasize a part of one of her sentences: "It just seems as if I couldn't stand it." This excitable, vehement, unbearable irritability is quite characteristic of Chamomilla, and relates to all things which irritate or annoy the patient. If they have pain, they "can't bear it," if a noise worries them, they "can't stand it a minute longer." And these feelings modified and manifested in different ways are more indicative of Chamomilla than perhaps of any other remedy. And now let me call your attention to the foregoing sentence, in which I said "these feelings modified and expressed in different ways." In the proper interpretation and use of this idea you will find one of the keys to successful prescribing. As I stated in my first lecture, I have copied the symptoms verbatim from the *Materia Medica*, in order that you might not be confused by hearing me repeat them in more or less different language. At the same time, you will remember, I told you that, gradually, you would get the *idea* rather than the mere words of a symptom, and that then you would recognize it, though invested in different clothing or words by different patients. And, indeed, until you have done this, you will never be able to prescribe satisfactorily or correctly.

Running through all the remedies that we have so far studied are symptoms indicating the lithæmic dullness or drowsiness. Thus we find that the Chamomilla patient is affected with "dullness of senses, diminished power of comprehension," sleepiness, yet cannot sleep.

This last symptom is one often found in hepatic difficulties, and indicates, as I have already stated to you, a hyperæmic condition of the cerebral cortical capillaries. The presence of more or less imperfectly disintegrated substances in the general circulation tends to produce a soporific effect upon the

brain, but, nevertheless, the hyperæmic state referred to counteracts it to such an extent that sleep is impossible, or at least fitful and unrefreshing.

You will remember that vertigo was mentioned as a symptom not infrequently occurring in the disease under discussion. Chamomilla causes a vertigo which, when studied in connection with its concomitants, points clearly to a gastro-hepatic origin. It is as follows: "Vertigo *after eating*, staggering in the morning on rising from bed, with fainting, with dimness of sight when sitting up in bed." Here you note the aggravation from eating, the significance of which is too plain to need further comment. "Staggering on rising in the morning, dimness of sight on sitting up in bed, fainting." This is a group of symptoms which has its origin from an affection of the cervical sympathetic that supplies the vaso-motor nerves for the neck, face, cranium and brain. You have not studied the nervous system yet sufficiently to understand the connection between these nerves and the stomach and liver, sufficient to say that there is such a connection brought about by means of the so-called *rami communicantes* which we will study a little later on. Chamomilla, or a disease acting in a similar way, so affects these ganglia of the cervical sympathetic, that the vaso-motor fibres having origin therefrom, or more properly speaking which pass through them, are at times irritated, again, they are in a paretic state. When irritated they diminish to a greater or less degree the quantity of blood in the brain. A diminished blood supply to the *gyrus angularis*, the centre of sight, causes modifications of vision, among them being dimness of sight. So this vaso-motor anæmia varying in degree causes staggering or even fainting. That an irritation of these ganglia may produce the symptoms mentioned has been conclusively proven by an experiment made by Brown-Squard. Having a patient suffering from a severe congestive headache which nothing relieved, he determined to apply galvanism to the cervical sympathetic, knowing that thereby he would cause the vaso-motors controlling the cerebral circulation to be thrown into a state of activity, they evidently being more or less paretic at the time. He did make application of the electric fluid as indicated, and was greatly annoyed to find that his patient was troubled for the next twelve hours with vertigo, dimness of sight, and frequently recurring and obstinate fainting spells. He had caused too great an irritation of the ganglia, and one extreme followed the other.

The ganglia of the left side are the most frequently and decidedly affected. This is shown by several characteristic

symptoms of Chamomilla. The flushing of the cheek, which is so prominent a symptom under this drug, is on the left side most frequently. Thus the symptom in Herring's "Materia Medica" reads: "Redness and heat of one cheek (left), the other pale." Looking further we find corroborative evidence in the headaches of Chamomilla. The hyperæmia is largely confined to the left side of the brain, as shown by the following symptoms: "Tearing and stinging pain in left side, particularly in the temple and in and around the eye." "One-sided drawing headache." "Violent stinging pains in left side of the head, from occiput to upper jaw." "Transient attacks of throbbing in one-half of the brain." From these symptoms quoted accurately from the *Materia Medica* you see what a decided action this remedy has upon one side of the head, and that, the left. As a symptom showing the hyperæmic character of the head symptoms, we may mention the following: "Pressure extending from vertex to temples, worse when thinking of it, from sudden stooping, or from mental exertion." You will at once see that all the causes of aggravation are those which would tend to increase the quantity of blood in the brain; "thinking of it, sudden stooping or mental exertion."

Among the eye symptoms we meet with some which have already been studied under *Calcaria* and *Antimony crudum*, viz.: "Lids agglutinated in the morning, with purulent mucus." "Inflammation caused by exposure to cold, damp atmosphere, or if worse by any cold change of weather." Once more let me warn you not to be deceived into considering these symptoms as merely local and connected only with the eyes. What is the *Rationale* of this? Why are the eyes so inflamed, agglutinated, and made worse by the kind of weather mentioned Do you not at once see that the weather and changes spoken of are just the kind to retard the activity of the skin, and hence increase the labor of the liver? This being true, other glandular structures are involved, the meibomian glands among others in the manner already described. As futher indicating the part played in the production of chamomilla symptoms by the cervical sympathetics may be mentioned another symptom: "Violent pressure in the orbital region, sensation in the eyeball as if it were tightly compressed from all sides, with momentary obstruction of vision." This shows conclusively the presence of and degree of hyperæmia in the orbit.

We find evidence of one of the lithæmic ear symptoms under this drug, that is, "Roaring in the ears as from rushing waters," in all probability due in this instance to circulatory disturbance.

The nasal symptoms, while in character resembling those mentioned as belonging to lithæmia, are such as we might almost reason out from the knowledge we already have of the action of the drug. You will recall what was said in regard to the mental state, *i. e.*, as being one in which hypersensitiveness, so to speak, was present, an *intolerance* of anything annoying. Under the special sense of smell, we find the symptom, "Extremely sensitive to all odors," and we might add *intolerant* of all disagreeable odors, and if the sense of smell *is* materially acute, it is not so much to be wondered at. Hyperæmia of the centres of smell in the inferior tempero sphenodial convolution no doubt has a tendency to render the sense of smell more acute; also the same condition in the Schneiderian membrane probably affects the peripheral filaments of the olfactory nerve in such a way as to increase its sensibility. That hyperæmia of this membrane is present is abundantly shown by certain nasal symptoms; thus: "Irritation, to sneeze, with crawling, dry heat and stopped-up sensation, feeling as if coryza would appear." "Nose bleed relieving the confusion of the head." If you remember your anatomy, you will recall the fact that a small vein passes from the nasal cavity up through the foramen cæcum to empty into the superior longitudinal sinus. When, therefore, the brain has became surcharged with blood, the rupture of the little vein relieves the pressure in the sinus and consequently of the brain in general.

While toothache is not necessarily an accompaniment or concomitant of lithæmia, it nevertheless is more frequently due in perhaps a secondary manner to it than is generally realized. It is not for this purpose, however, that I call your attention to the tooth symptoms of Chamomilla, so much as for the purpose of showing you how characteristic of the drug is a paretic state of the vaso-motor filaments from the left cervical ganglia. The tooth symptoms read like this: "Toothache, stitching, digging, gnawing, as from taking cold, during or after eating, if anything warm is taken into the mouth, especially coffee; in the room; getting warm in bed; during menstruation; *mostly left side* and lower teeth."

Here you see every evidence of hyperæmia as the symptom states, "toothache as from taking cold," which is always hyperæmic or congestive in character, and further you will notice that all the causes of aggravation are those which would tend to increase hyperæmia; warm things in the mouth; getting warm in bed; during menstruation, and lastly particularly note that it is *mostly on the left side.*

We have made an analysis of the various symptoms as they

have been mentioned, so that you ought to be almost able to perform synthesis, that is build up many of the symptoms from your knowledge of the general action of the drug. If not really prepared to do this you will at least, I am sure, be better able to remember the symptoms and their significance.

Let us now see how other symptoms of this remedy correspond to those of lithæmia. As regards the mouth and tongue, we find the following, and their relationship to the disease under consideration is unmistakable: "Taste bitter, sour, like rancid fat; putrid." "Tongue coated, white yellowish, or white at the sides, red in the middle; red; cracked." "Burning on tongue." While any of these symptoms may be present under chamomilla, you will nevertheless find that the taste is most frequently *bitter*, and the coating of the tongue yellowish rather than white. If the tongue is not coated at all, or at least only at the base as is often the case, the remaining portion will look quite red, a decided evidence of the hyperæmia which is present in it, and which further indicates a similar condition of the mucous membrane from the mouth to the stomach. There is a "fetid smell from the mouth," and remembering what I just said about the hyperæmia of the mucous membrane, you are prepared to find and interpret the symptom, "heat in the mouth, pharynx and œsophagus to the stomach." I say you are prepared to find this symptom, and if you remember the pathological condition which is the basis of it, you will never forget that it is a symptom of Chamomilla any more than you will forget that the intense hyperæmia of the tissues within the orbital cavity give rise to the symptom already mentioned, viz.: "violent pressure in the orbital region; sensation in the eyeball as if it were tightly compressed from all sides, with momentary obstruction of sight."

The salivary glands are more or less active under this remedy as shown by the symptom, "collection of saliva of a metallic or sweetish taste." You will find more often than otherwise that the metallic taste predominates rather than the sweet, though the bitter is more likely to be present than either. I will not stop at present to explain to you the significance of this salivary symptom, there will be occasion to do so later on, after you have acquired such a knowledge of the nervous system as to make an explanation more easily understood and intelligible.

Bearing in mind the condition of the mouth, throat, etc., *i. e.*, in regard to its hyperæmic condition, we could almost predict the following symptom: "Thirst for cold water; likes to hold the cold water in the mouth a long time." That we

may the more fully understand the import of this symptom, let us take a glance at the causes of thirst. Thirst is *always* due to two main or principal factors, a primary and a proximate cause. The primary cause is a lack of water in the system, the proximate cause is the hyperæmia of the mucous membrane of the buccal and pharyngeal cavities, increased or intensified if the hyperæmia extends down the œsophagus to the stomach. Understand these are the two factors which produce *normal* thirst, in which case the primary of course always precedes and gives rise to the proximate. In diseased conditions as when the organism is under the influence of certain drugs, there is a different state of affairs, that is, a hyperæmic condition of the mucous membranes referred to occurs without there being any primary cause of thirst present. In such a case it is readily seen that the introduction of water will only temporarily allay thirst, in fact only while the capillaries of the mucous membrane remain contracted as a result of the cold water passing over them. This shows us why the Chamomilla patients enjoy or get relief from "holding the cold water in the mouth." And incidentally, let me call your attention to the fact that the toothache of Chamomilla is relieved by cold, "By putting the finger wet with cold water in the mouth," as the symptom reads.

Your physiologist will no doubt relate to you the interesting and instructive experiment made by Magendie upon a dog, which conclusively demonstrated and proved the truth of what I have just told you about thirst and its causes.

After what we have just learned, we naturally look for the following symptom under Chamomilla: "Aversion to coffee and warm drinks."

We scarcely need be told that "want of appetite," is a symptom of this remedy. Here is another symptom quite indicative of Chamomilla and which I think you can now readily interpret for yourselves: "After eating and drinking, heat and sweat of the face." You remember in how many instances there has been evidence of an affection of the cervical sympathetic when the individual was under the influence of Chamomilla, you further know that said influence was of such a nature as to cause flushing, hyperæmia of the vessels of the face, not always confined to one side, but sometimes affecting to an equal degree both. Within the cervical sympathetic run the fibres which control the secretion of the sudoriporous or sweat glands, these are stimulated, and hence a quite characteristic symptom of this remedy is "much warm sweat about the head and face." That these last named symptoms are due to an affection of the portion of the nervous sys-

tem named there can be no doubt, neither can there be any question that they are produced in a reflex way as a result of derangements of the digestive apparatus, for next to the last symptom quoted clearly demonstrates this.

Next we find the following symptoms which suggest lithæmia and Chamomilla at the same time. "After eating, abdomen puffed up." "Eructations, sour, constant, empty." The cause of these symptoms I will defer giving until we find them under another remedy, in which they are produced in the same way. We have already had reason to presume that coffee and Chamomilla were antagonists, *i. e.*, that coffee aggravated Chamomilla symptoms. You remember what was said about the teeth in connection with this. As further evidence in this line we have the following symptoms: "Pressive pain in the stomach and beneath the short ribs, which impedes breathing, especially after drinking coffee." These are purely congestive symptoms, and that you may not misunderstand me when I refer to coffee and Chamomilla as antagonists, let me say a word or two further on this matter. We have certainly seen that Chamomilla gives rise to hyperæmia, coffee does also, therefore, there already being present this condition, it will readily be seen that coffee will intensify it, and hence aggravate the symptoms which appear as a result of it.

Another symptom now presents itself, to which we have already the key. "Stitches in the region of the liver, followed by chilliness, after vexation." This of course is not a constant symptom, but when occurring shows the Chamomilla susceptibility, so to speak, underlying the case. This chilliness just mentioned suggests to me some very characteristic symptom of this drug connected with the vaso-motor system upon which we have seen it exerts a very decided action. In some cases of lithæmia you will find as prominent and disagreeable symptom. "Icy coldness of the hands or feet, or both, occurring almost always soon after eating, sometimes coming on while the patient is at a meal." This will continue a variable length of time, to be succeeded by warmth, almost amounting to burning of the hands and feet, accompanied by much fullness of the veins. You remember the cheek symptom, which shows a tendency to an affection of certain definite vaso-motor centres, causing a flushing and burning of a circumscribed spot. The vaso-motor centres in the dorsal and lumbar regions respectively are involved in a similar manner, and hence there is burning of the palms of the hands or soles of the feet, so that the patient wants to stick them (the feet) out of bed at night, or find a cool place for them. (vide sul.)

As regards the condition of the bowels under this remedy

we are much more liable to find present diarrhœa or at least loose movements than constipation. The reason for this is at once apparent. Acting upon the arterial system rather than the venous, the capillaries of the hepatic artery are distended, and more than the normal amount of blood is thrown into the liver. This stimulates its function so far as the secretion of bile is concerned. What will be the effect of this, you thoroughly understand. The capillaries of the mesenteric arteries are affected in the same way as are those of the hepatic, and consequently the intestinal secretion is increased, the osmotic circulation which you have learned all about.

You will find, however, that if your case is chronic at all, the character of the stools, as well as their frequency, will be different from what pertained to the early stages. Thus at first, if a Chamomilla patient, the clinical history of the case will reveal the fact that at the onset of the attack the stools were loose, consisting of fæces and mucus of a bilious character and of a disgusting odor, resembling that of rotten eggs, due to the formation in the intestine of carboretted hydrogen, the same as gives to the eggs their odor. When the case has became chronic, the stool will be scanty and irregular, frequently light colored and foul smelling.

The urinary symptoms under this drug are not specially characteristic, that is, if taken alone without considering other conditions present, they would not necessarily suggest Chamomilla in preference to some other remedies. If you recall what was said in regard to the urine and vesical symptoms occurring in lithæmia, you will at once recognize their relation to that disease as well as understand their meaning. They are as follows: "Burning in the neck of the bladder when urinating." "Urine yellow, with flaky sediment; burning in urethra while passing; scanty; turbid; clay colored soon after passing; gets thick when standing; sediment yellow." These symptoms all go to show the presence of bile pigment in the urine as well as more or less of the imperfectly disintegrated, albuminous substances. There is a certain amount of hyperæsthesia of the filaments of the pudic nerve distributed to the region of the trigone vesicæ and to the urethra, as is shown by the irritation, burning, smarting, etc., which takes place during the voiding of the urine. The filaments of the same nerve which pass to the rectum are similarly involved, as is indicated by the symptom "Griping, with great ineffectual desire for stool." How this symptom is occasioned we will tell you in detail at another time.

From what you already know of the disease and remedy under discussion there will be little need of any explanation

regarding the following symptoms. "Hoarseness on account of tough mucus in the larynx, which can only be removed by strong hawking." "Catarrhal hoarseness of the trachea, with dryness of the eyelids." Don't fail to catch the significance of these symptoms; the condition of the eyelids in connection with the tracheal catarrh points almost unerringly to hepatic difficulty, and the point I mentioned under calcarea in regard to looking for hepatic derangement when this class of reflexs was present, holds equally as good here.

You will no doubt recall that, when speaking of some of the less common concomitants of lithæmia, I mentioned the fact that occasionally an attack of asthma seemed traceable directly to the disease just mentioned. That Chamomilla may sometimes be indicated in such cases is clearly shown by the following symptom: "Asthmatic attack, seemingly produced by an accumulation of flatus; better from bending the head backward, in cold air, and from drinking cold water; worse from dry weather, and from warm diet."

The symptoms connected with the heart and pulse are similar to those mentioned as characteristic of lithæmia. Thus there is a "palpitation and faintness; pulse small but tense and accelerated, frequently very unequal, and then for a time weak."

You will at once recognize the, as we might term them, limb symptoms of lithæmia, in those which I am about to give you. "Heaviness and lassitude in the legs, aching in all the limbs with feeling of heaviness." Tearing pains from abdomen down into the legs." This last symptom is quite characteristic of Chamomilla, and is found, not only in hepatic difficulties but also in affections of the uterus or rectum, though the fact must not be lost sight of that many of the derangements of these structures are incidental or secondary to those of the liver, "Cramps in the calves with burning of the soles of the feet" is also a well marked symptom under this remedy. The symptoms coming under the head of sleep will at once suggest to you abnormal disintegration. They are: "Yawning and stretching, sleepy but cannot sleep. Scarcely sleeps, and on falling asleep is tormented by anxious, frightening dreams." During sleep, moaning, weeping and wailing, starting up, crying out, tossing about and talking." In the case of children, particularly, will this last symptom be found strongly indicative of Chamomilla, but in almost all cases the sleep is restless and unrefreshing. Recalling the decided action of this drug upon the brain, rendering it hyper-

sensitive as it does, we need not be surprised that even during sleep it is not restful or quiet.

When the so-called paralytic symptoms appear under lithæmia, if of such a character as to call for Chamomilla, you will most generally find that what the *Materia Medica* says in regard to them is true, viz.: that "*The paralytic sensations are always accompanied by drawing or tearing pains, and the drawing or tearing pains rarely occur without the paralytic or numb sensation in the part.*"

"Muscular or articular rheumatism, with great nervous excitability," is a symptom or condition which we are well prepared to expect, and understand under this remedy. That it is also specially indicated, or rather is specially liable to be indicated, in persons with "arthritic or rheumatic diathesis," is not to be wondered at when we know that the functional disease of the liver, known as abnormal disentegration is almost always at the bottom of the rheumatic or gouty diathesis, and the intimate relationship which Chamomilla sustains to the disease just mentioned cannot be questioned if you have paid any heed to the symptoms given.

To complete the picture of lithæmia which Chamomilla presents, let me hastily mention the skin symptoms of this drug: "Skin unhealthy, every injury suppurates." "Red rash on the cheeks, skin inclined to inflammation." These, with others of the same character, when considered in connection with the many symptoms already given, stamp Chamomilla as a prominent and exceedingly useful remedy in lithæmia. In abnormal elimination it is often curative, particularly when the cause of this form of derangement of the liver can be traced to the brain, that organ in turn having been deranged by—as an exciting cause at least—some powerful mental emotion, usually anger, fright or irritating mental worry, rarely from quiet grief. How this and other drugs produce physical ills through their action upon the brain we shall learn later on, or, perhaps, more correctly speaking, we shall learn what parts of the brain they act upon in producing their peculiar and individual symptoms. If you have followed me closely, and have well in your minds all I have told you about Chamomilla, you will be prepared, not only to prescribe it in lithæmia, but in a number of other diseases as well, in which you will find it curative. Why or how this remedy can be and is useful in different diseases, being indicated in them all by the same symptoms to a large extent, I will tell you in another lecture as well as give you a *resume* of the indications for the various drugs we may treat of under the therapeutics of lithæmia.

# Clinical Society Transactions.

JOSEPH P. COBB, M. D., SECRETARY.

The regular monthly session of the Clinical Society was held in Club Room A, of the Grand Pacific Hotel, on Saturday evening, December 3, Dr. George F. Shears, president, in the chair. About sixty members and students were present.

Dr. E. Z. Cole, of Michigan City, was proposed for membership by Dr. R. Ludlam, and Dr. J. A. Schmidt, of Chicago, by Dr. George F. Shears.

The Bureau of Surgery, Dr. G. A. Hall, chairman, offered the following papers:

I. The medico-surgical diseases of the nasal fossæ—By Dr. G. A. Hall.—I have no excuse to offer for presenting a subject which, to some, may appear to be commonplace. It deals with what is frequently called an unimportant locality, afflicted only by innocent and readily cured maladies, and yet, the every-day practitioner, as well as the specialist, must admit their frequency if not their importance.

The object of this paper is not alone to outline the treatment of such cases, but for the purpose of drawing the attention of the profession to the complications which attend these local disturbances, and the sympathy which exists between the nasal cavities and other cavities adjacent as well as remote. We shall therefore treat the subject under the following heads: First, the cause of their frequency; second, their variety and nature; third, their complications and sympathetic relations; fourth, their medical and surgical treatment.

For the purpose of a better understanding of the subject, we append a description of the anatomy of the nasal passages:

The nasal fossæ are two irregular cavities situated on either side of the middle line of the face, extending from the

base of the cranium to the roof of the mouth, and separated by a thin septum. They open externally by the anterior nares and terminate in the pharynx behind by the posterior nares. Extending horizontally across the outer wall of each fossa, we find the inferior turbinated bone attached to the inferior turbinated crest of the superior maxillary. Above this we find the middle turbinated bone of the ethmoid, and a little higher up the superior turbinated bone. These are soft, spongy bones, without muscular attachments and divide the outer wall of the fossæ into three irregular passages called meatuses. The superior meatus, the smallest of the three, is situated between the superior and middle turbinated bones at the upper and back part of each fossa. Two foramina open into it—the spheno-palatine at the back part of the outer wall, and the posterior ethmoidal cells at the front part of the upper wall. (The sphenoidal sinuses open at the upper and back part of the nasal fossæ directly behind the superior turbinated bone.) The middle meatus is situated between the middle and inferior turbinated bones, having two openings—the infundibulum in front, communicating with the anterior ethmoidal cells and the frontal sinuses. About the centre of the outer wall there is an orifice communicating with the antrum of Highmore. The inferior meatus, the largest of all, is situated between the inferior turbinated bone and the floor of the nasal fossa. It extends along the entire length of the outer wall of the nose, having at the anterior part the lower orifice of the lachrymal canal. Over the whole surface of the fossæ there is reflected first the periosteum and then the Schneiderian membrane, extending through and lining all the foramina of communication. In places this membrane is attenuated, but over the region of the turbinated bones it is formed in tufts.

In the posterior nares, at the superior arch of the pharynx, we have a liberal supply of adenoid tissue, which we shall hereafter consider as an important factor in catarrhal affections.

The nerve supply of the fossæ comes from the first and fifth cranial nerves. The olfactory (or first pair), supplies the

superior three-fourths of the septum, the superior turbinated bone; the upper one-half of the middle turbinated bone and the roof of the nasal cavities, all of which seem to be defined by a brown-colored tessilated epithelium. It is this portion of the nasal fossæ which seem to be most highly endowed with the sense of smell. The rest of the cavity, as well as the integument of the nose, receives its nerve supply from the nasal branch of the opthalmic nerve, which comes from the Gasserian ganglia, which in turn is formed by the two roots of the fifth nerve.

Relative to the frequency, we might say that nine-tenths of the human family suffer, to some degree, with catarrhal invasion of the nasal cavity. Like many other diseases, it seems to be largely on the increase, and very frequently terminates in those lesions which require surgical treatment. There is scarcely a climate or latitude upon the face of the globe where mankind is exempt from this trouble. Moreover the peculiar feature is, that a person suffering severely from catarrhal trouble at the sea coast, or other locality, may be greatly benefited by a change of location, even though in the last locality the same troubles are invariably prevalent.

Climate has been largely censured for the existence of catarrh, but I am of the firm conviction that it is as frequently referable to modes of living and hygienic surroundings. It is customary to say that certain localities are productive of catarrhal troubles, and yet we all know that they are mitigated and cured under all climatic influences. Latitudes subjected to abrupt changes, or with a humid atmosphere, are without doubt favorable places for all forms of catarrh; but they by no means render a cure impossible.

The term catarrh (the simple form) is recognized as inflammatory invasion of the mucous membrane of the air passages. The nasal cavity is most frequently the seat of the disease in the first stage. From here it may extend to the throat, pharynx, larynx, bronchia, and in many cases it may involve a portion or all of the digestive track, the bladder, as well, and in fact all cavities lined by mucous membrane.

The question is often asked, why it is that the nasal cavi-

ties form the seat or beginning of nearly all catarrhal invasion. The answer to this is: The exposed position of the face, forehead and neck: the invasion of foreign and irritating substances; the inhalation of noxious and pungent vapors, and all other impurities of the air which have such free access to the nares. Besides these we may mention, as the most frequent cause, the sudden suppression of the external exhalations, frequently described as a "cold." Very often, we hear one say, "I have a slight cold," or "I have taken a cold," whenever reference is made to catarrhal trouble, the evidence of which is a copious discharge of mucus from the nose. The mother, in apologizing for her child, who is continually using both coat sleeves, makes reference to "the cold in his head," and it seems to be the common admission of the profession and laity, that catarrh in its acute form is the result of "catching cold."

To define or attempt to explain the meaning of the expression "taking cold," as used in common phraseology would lead to the same difficulty experienced in explaining the term "biliousness." Our definition of a cold would be a "sudden suppression of external secretions or exhalations by exposure to a draught when the body is in an overheated state." This causes the noxious material to seek some other outlet, and, as in other functional substitutions it seizes upon some contiguous internal mucous surface which has an intimate relation with the outer or integumental surface. The mucous membrane therefore becomes hyperæmic, and often congested and then inflamed while endeavoring to discharge this function of exhalation. This may be limited to a circumscribed portion as the head, throat, lungs, stomach, bowels or bladder. It may involve the entire mucous membrane. The question may be asked why it so frequently predominates in the nasal cavities. The answer to this may be given in part, when we examine the nerve supply of these cavities, and the sympathetic relation with the integument. We find that the face, throat, buccal cavity, orbit, and frontal region receive their nerve supply from the fifth nerve, and are connected with the sympathetic system through the Gaserian ganglia, the cili-

ary ganglia and the cavernous plexus. It is also through this nerve supply that we gain the sympathetic relation between the nasal fossæ, adjacent cavities and contiguous surfaces. The face and other exposed surfaces of the head being so highly endowed with sebaceous glands, and sweat folicles is not only the surface most frequently bathed in perspiration, but most exposed to draughts and other influences which would suppress the cutaneous exhalations. When suppressed they seek an outlet through the Schneiderian membrane of the nasal cavities for the reason of the above nerve supply.

*The Variety and Nature of Catarrh.*—In discussing the second division of the subject I shall make the assertion that all disease involving the nasal cavities (barring traumatism and specific troubles) have their origin in and are the result of neglected catarrhal inflammation. Neglected catarrh, or repeated colds overlapping each other, push inflammatory action beyond its simple stage. The muciparous glands and folicles of the Schneiderian membrane become indurated, the secretion changes from the viscid to the starchy and finally to the gelatenous form. In some instances their function ceases entirely, and the mucous membrane loses its moist condition and becomes exceedingly dry. This condition has received the name of dry or atrophic catarrh. Upon close examination the mucous membrane is found to be of a dark modena color, covered with little scales, and when removed leaves a denuded surface.

When the moist or acute condition passes beyond the stage of coryza it results in ozena. This is characterized by the sticky gelatenous secretions, the offensive breath and the ulceration which, in many instances, becomes very destructive. Passing on through the mucous membrane and periosteum it attacks the osseous structure of the septum and the turbinated bones. Its work does not cease until in some instances the entire frame work is destroyed, which allows the nose to settle down to a plane corresponding with the malar bones.

One of the common outgrowths of nasal catarrh is nasal polypus, of which there are two forms—gelatenous and fibrous. The gelatenous is by far the more frequent, and its common

seat is the superior turbinated bones. It may consist of a simple lobe attached by a narrow pedicle, or it may be of multiple formation, hanging down like a bunch of grapes. The surface is usually smooth, and of a grayish color. Their origin is generally in the thickened or infiltrated mucous membrane; the muciparous glands are enlarged, and, as the growth projects above the surface, it becomes elongated by the constant passing of air and the too common violent blowing of the nose. The symptoms are those common to chronic catarrhal irritation, attended with frequent attacks of sneezing. The symptoms are hygrometric in character, which accounts for the sudden aggravation at the close of day or with the falling mercury. Frequently the patient will suddenly complain of a "severe cold in the head" without any previous evidence of exposure.

The fibrous variety are more rare than the gelatenous form, and may occur at any period of life. Their origin is from the periosteum or the fibrous covering of the bone. They are rarely idiopathic, more frequently being the result of badly managed gelatenoid growths. They may arise from injury of the nasal cavities, and occasionally they spring from the petro-occipital suture at the base of the skull, or from the great wing of the sphenoid. Again they may come from the vomer as well as the nasal plate of the superior maxillary. They have a broad attachment, and are of a dark livid or purple hue. The slightest irritation provokes copious hemorrhage. They grow very large, and in some cases cause the lateral walls of the nasal fossæ to bulge out, giving a peculiar fullness under the eyes. It may flatten the nose or increase the expansion of the upper lip which has been characterized as "frog face." When removed they are liable to return unless the attachment and the bone is completely extirpated. This form is not usually attended with the catarrhal symptoms of the gelatenoid variety. The patient experiences the sense of great weight and pressure as well as obstruction of the nasal cavities. The voice becomes nasal and indistinct, sleep is disturbed, deafness, vertigo, lachrymation and loss of appetite follow the nasal pressure.

Sarcoma and carcinoma may have their origin in the nasal fossæ. Sarcoma is the more frequent. These malignant troubles are sometimes the sequence of imperfectly managed fibrous polypi. The symptoms will resemble those of the latter, and as the disease advances constitutional involvement and cachexia will become manifest.

Hypertrophy and infiltration of the mucous membrane present many of the symptoms of gelatenoid polypi, but upon careful nasal examination under a strong light it is not possible to detect the body of any independent growth. While the meatus may be constricted the whole mucous surface has a grayish or sodden appearance. The symptoms are somewhat mercurial in character, and the trouble proves obstinate in treatment. This form of hyperplasia or thickening of the mucous membrane may be the result of neglected colds or it may come from a constitutional dyscrasia.

Hyperæsthesia of the mucous membrane is the result, in many cases, of a too severe treatment of simple catarrh. Again, it may be due to the inhalation of atmosphere impregnated with irritating gases or foreign bodies in the form of fine dust of an alkaline or escharotic character. In either case the nasal passages are dry, of a dark red or "angry" color and bleed readily upon the slightest friction. The symptoms are more or less hygrometric in character. This hyperæsthesia may involve the entire nasal fossæ or it may be confined to the tufts of the turbinated bones.

Sometimes we find a thickening of the periosteum and lining membrane of the nasal cavities due to syphilitic taint. This is always an intractable diseases for treatment.

The various deformities of the nasal fossæ (caused by the deviation of the septum from traumatism or fractures of the turbinated bones not being properly adjusted), impinge or encroach upon the middle, and inferior meatuses, and may act as causes of disease by impeding the function of respiration. An increase or hypertrophy of the adenoid tissue at the superior pharyngeal arch may also impede the function of respiration. All of these changes may be recognized as distinct diseases, or at least changes in the structures and tissues

which lead to other and more serious troubles. So we might enumerate many others of a similar character, which must be considered in the treatment of nasal ailments.

*Complications and sympathetic relations* —The importance of the nerve supply of this peculiar locality, and the relation of this nerve supply with the sympathetic system through the medium of the various ganglia in the matter of diagnosis as well as treatment has already attracted the attention of the advanced medical profession. In no department have we better opportunity to carry out the neurological study than in the diseases of the cavities herein mentioned with their reflex and secondary troubles. So impressed have I become with their importance and magnitude that I have no hesitation in saying that more than one-half of the diseases involving the eye, the ear, the pharynx, the larynx, bronchiæ, the thyroid body and the entire digestive tract are initiated by and have their origin in nasal catarrh, and other diseases involving the nasal fossæ.

Time will not permit me to enter into detail with these various and endless complications. I shall only mention a few of the most conspicious points, hoping that my colleagues will contribute more valuable experience from their special departments.

I have noticed that a majority of the cases of inflammatory lesions of the various tissues of the eye are preceded and accompanied by nasal catarrh. Otorrhœa, inflammation of the semi-circular canals, deafness and many of the involvements of the auditory canal will be found in this class of subjects. Hypertrophied tonsils and hypertrophy of the adenoid tissue of the superior pharyngeal arch (causing difficult respiration, especially with children) begins with nasal catarrh. Bronchocele and exopthalmic goitre may also have their origin traced to this cause. Spasmodic asthma is not an infrequent outgrowth of nasal polypus. Ozena or atrophic catarrh will cause a laryngeal and bronchial cough and produce, in many instances, a dry spasmodic cough, so commonly called nervous cough.

Through the sympathetic system, as well as by absorption of the inspissated nasal excretions; the appetite becomes im-

paired, digestion is feeble; the patient becomes anæmic and, in appearance, resembles one suffering from wasting disease.

As before mentioned, these are only a few of the many secondary and reflex troubles having their origin in the nasal passages. I can not enumerate more in this paper, nor can I take the time to speak more fully of the nerve supply which is so prominent a factor in this class of diseases. I sincerely hope some of my associates, whose specialty is in that line, will follow, either now or at some future date, with a more complete synopsis of the neurological features of this subject.

At this point I would like to recite a few illustrative cases which have come under my observation. Many of these had been given a faulty diagnosis, owing to the fact that former medical attendants had not fully considered the importance of the nerve supply of the nasal fossæ, and the sympathetic relations through the Gasserian and other ganglia.

*Case* 1.—Mrs. K——, æt. thirty-three, came to me November 20 last, for consultation and advice. She was a lady of slight figure, dark hair and eyes, and of a nervous and active temperament. Her general appearance was that of good health. She complained of pain, accompanied with a "dull aching sensation" in her throat. Upon closer examination I found three points, viz.: The region of the thyroid body, the crycothyroid district, and the hyoid arch where the pain was most pronounced. This pain was somewhat irregular, and troubled her most when she was tired or suffered with a slight cold.

She had conceived the idea that she had a tumor in her throat which must be removed. Deglutition was not impaired; respiration was quite perfect; sleep was normal, only when disturbed by pain; there was no apparent enlargement of the neck, in fact it was slender and delicate in appearance. At times she had a slight, spasmodic cough, which was liable to occur when inhaling cold air. She had consulted specialists, all of whom had failed to give her any satisfaction respecting the cause and nature of her trouble. They had advised "tonics" and "nervines," to keep her quiet and build up her health. At the same time they intimated to the husband and friends that she had a "nervous and hysterical" trouble. In gaining a history of the case I found that about five years ago she had a severe illness, which was called cerebro-spinal meningitis. A few months after this she first noticed a fre-

quent disposition to sneeze. These attacks would come on sometimes in the night, and were frequently repeated. Any slight exposure or cold would aggravate the trouble. When asked if she had suffered with catarrh, she denied any knowledge of it, but admitted that she had slight irritation of the throat, at times, and a discharge through the posterior nares. It was nearly two years after she noticed the sneezing spell that she began to suffer with the pain in the throat, which had continued at intervals up to the present time. A careful examination of the nasal fossæ revealed atrophic catarrh, with ulceration of the middle and superior turbinated bones of the left fossa. Throwing a spray of pure listerine into the upper cavities a violent paroxysm of sneezing was produced, which was followed in a few moments by the characteristic pain in the throat. This result was so direct that the patient was ready to believe my expressed opinion that the pain in the throat was reflex from the nasal cavities. If she had not previously suffered with cerebro-spinal meningitis there had evidently been some inflammation at the base of the brain which involved the origin of the fifth cranial nerve, and, as I believe, caused asthenia of the ophthalmic branch of the fifth nerve, which extended to the nasal branch of the same. This, with a previous catarrhal inflammation, caused the ulceration, and through the reflex system the unpleasant symptoms which she believed to be the result of a morbid growth. To confirm my convictions, and to convince the patient of the direct relation, I sprayed the nasal fossæ with a four per cent solution of the muriate of cocaine. In twenty seconds the pain in the throat was entirely relieved. The patient was then placed under treatment for atrophic catarrh.

*Case* 2.—Mr. D——, æt. thirty, called upon me for advice in the early part of November. He was suffering with a constant harrassing "barking" cough, which was continuous day and night, and aggravated after eating. He was a man of small figure, pale and emaciated in appearance, and looked like one suffering from want of sleep and nourishment. His case had been pronounced one of quick consumption, with no hope. A physical examination of the thorax revealed no trouble with the lungs, but the mucous surfaces of the larynx and bronchia were engorged. The nasal fossæ were found to be in an advanced stage of atrophic catarrh, with hypertrophy of the mucous surface of the fauces and pharynx. Treatment for this soon relieved the cough.

*Case* 3.—Mr. F——, æt. forty, had for many years suffered with hay fever. This would generally come on during

the month of August, beginning with coryza and nasal involvement. Change of climate would give him relief, but when compelled to remain in the latitude of Chicago, the nasal trouble would become complicated with asthma, with which he suffered severely. On my first visit, August 20, at midnight, I found him suffering with one of those attacks. His face and hands were livid, his eyes were staring, and the facial expression was indicative of great suffering, and a powerful effort to force a little air into the lungs. His wife hurriedly told me the cause of the trouble, which led me to use a nasal spray of cocaine. This gave him almost immediate relief, and in a few moments he was sleeping quietly. Active treatment for nasal catarrh was followed, and there was no further return of the asthma.

*Case* 4.—Mr. S——, æt. fifty-six, had for years been a great sufferer with asthma. Many lines of treatment had been followed with little or no benefit. The nasal fossæ were found to be full of a mucoid polypus. These, together with the middle and inferior turbinated bones of both fossæ, were completely extirpated, which gave him much relief. For six weeks he was placed under constant treatment, and at the end of this period, all trace of asthma had disappeared. It is now four years since the operation, and there has been no evidence of a return.

*Case* 5.—Miss C——, æt. eighteen, tall and spare in form, with a pale countenance, thick lips, dark hair and blue eyes; was supposed to be dying with consumption of the bowels. I diagnosed her sufferings as a result of the pernicious effects of catarrh. She was accordingly placed under the appropriate treatment for the same, and at the end of one year was pronounced cured. By this time she had gained thirty pounds of flesh, and presented a healthy appearance.

*Case* 6.—Mr. L——, æt. forty-four, suffering with nasal polypus, consulted me relative to the condition of his ear, which gave him much suffering. Believing the nasal trouble to be the cause of the aural difficulty, the polypus was removed, and the nasal passages alone were treated. Pain and all other evidences of ear trouble disappeared, and have not since returned.

*Case* 7.—Mrs. S——, æt. forty-two, had for years suffered with frequent attacks of cephalalgia. These were extreme and, as she remarked, unbearable. She had taken large doses of quinine and other remedies to control the neuralgia. No one had thought to examine the nose. My examination revealed hyperplasia and hyperæsthesia of the nasal tract.

The pituitary membrane was of a modena color and so sensitive that a spray of cold water, containing two per cent of listerine, caused the most intense suffering. With appropriate treatment the head and nasal cavities were relieved, and there has been no return of cephalalgia.

Other examples might be cited, but these will perhaps suffice to show the importance of locating the origin or seat of the trouble, instead of combating symptoms, which are purely reflex.

*Medical and Surgical Treatment.*—It is not my intention to give in detail the treatment for each and every kind of catarrh, nor shall I refer to the variety of opinions relative to the other maladies herein mentioned. Every practitioner may have his panacea for catarrh in all its stages, and in the surgical field we have advocates of both radical and conservative treatment. I shall simply limit myself to a few remedies and measures which I have found useful in curing this life-destroying disease.

First let me say that coryza or acute catarrh should never be neglected, especially in the child or person inclined to a scrofulous habit. As remedies I have found the following useful: *Arsenicum alb, Arsenicum iod, Aconite, Ambrosia, Arum triphyllum, Baptisia, Bryonia* and *Camphor.*

Locally I have found that a four per cent solution of cocaine injected into the nasal fossæ by means of a double bulb spray will relieve all distressing symptoms immediately. In young subjects I would use a two per cent solution. This of course is mostly palliative, but a four per cent solution of listerine may be considered curative when administered in this manner.

When the disease has passed to the stage of ozena or atrophic catarrh, we find it necessary to resort to more active treatment. Of the remedies in this stage, I consider *Mercurius cor.* as one of the leading; *Argentum nit, Nitric acid, Hepar sulph., Arsenicum iod., Calcaria phos,* and *Calcaria iod.,* are all valuable; *Declat's Nascent Phenic acid* internally and locally with the spray is also useful.

Locally we may use in the spray *Permangenate of potash,*

*Hydrastia* (colorless fluid extract), *Trillium* (fluid extract dilute), *Sanguinaria* (dilute fluid extract).

If there is any ulceration, specific complication should be considered. The general health must in all cases be sustained. In children, when the digestive tract or the lungs have become involved, causing loss of appetite, poor assimilation or laryngeal cough, I would give some form of *Cod liver oil*, *Bovinine*, or other articles of liquid diet, which may be tolerated by the patient.

Cleansing the nasal cavities is of the utmost importance. This I believe can be usually accomplished by the nasal spray for both posterior and anterior nares. The nasal douche is of little account, except so far as it may wash the lower or middle meatus. If the upper cavities are involved, the douche will not reach the locality. It can however be done by the nasal spray.

In cases where the secretions have been neglected a long time and the passages have become filled with hard scabs, the head can be cleansed by the use of electricity. An electrode in the form of a curette will readily clear the accessible surface. Whenever there is infiltration or hypertrophy of the mucous membrane, I am convinced by repeated observation that electricity is a valuable agent in treatment.

The thickening of the adenoid tissue of the superior pharyngeal arch may be reduced by a few applications of the galvanic current.

Proper attention to the catarrhal stage may prevent many of the other troubles which might otherwise follow. If, however, a morbid growth is formed, it should at once be removed. If it is mucoid in character, its removal may be accomplished by the galvanic current. Should it be a case of long standing and the symptoms distressing, I should remove them by avulsion and then follow with electricity.

Fibrous polypi are much more difficult to manage, and are not as a rule amenable to remedies or local applications. They should be extirpated at once, thoroughly and carefully. All periosteal attachments should be removed with them. Their return may be prevented by the use of electricity and the spray.

Malignant growths are only amenable to the most radical, surgical treatment. Their entire removal, together with all osseous structures that are in any way involved, is absolutely necessary.

Hyperæsthesia of the mucous membrane may be treated by the cautery or the application of escharotics to small surfaces at a time.

The necessity of many treatments and many weeks of time to complete a cicatricial formation renders this method impracticable. I have found better results in a shorter space of time by the complete extirpation of the turbinated bones and the removal of such mucous surfaces as will naturally cling to the parts. Let this be followed with treatment to prevent chronic ulceration and necrosis, and to establish cicatricial formation.

In a constricted or very small meatus a very slight thickening of the mucous membrane will obstruct the breathing. In such cases, where the trouble becomes chronic, it will save much time and suffering on the part of the patient to remove the turbinated bones.

*Discussion.*—Dr. Hall—I would like to have Dr. Vilas give us something on this subject.

Dr. Vilas—In response to Dr. Hall's request, I would say that rhinitis has been made a special study in the past few years, and in the specialties has occupied much the same fashionable position of attention that the rectum has in the general practice of medicine and surgery. In consequence, one is apt to find that no part of the cephalic region, and few portions of the body elsewhere has escaped the machinations of this, at last found, true criminal. Sequent to all this, this organ has been explored and probed and pulled in a manner that indicates it has lost much of its traditional sensitiveness, both medical and social.

It has been found that exophthalmic goitre has been relieved, and the cardiac disturbances quieted by removing the inferior turbinated bone. Bladder troubles have been relieved by treating the nasal cavities, the uterus has been pulled up,

and the various viscera hauled into place, until if all we hear and read is true, the nose ought to have been originally treated in a large number of cases where other regions were supposed to be at fault. Ear troubles are closely associated with this region, but as I am aware that special papers have been prepared on this subject to be read, I will not speak longer, but give way to them owing to the lateness of the hour.

II. Reflex symptoms of the eye and the ear dependent upon morbid conditions in the nasal fossæ.—By Dr. Jos. Watry.—This article is not intended to contain all the various reflex symptoms of the eye and the ear, which may be caused from a diseased condition of the nasal cavities, but only such symptoms as I have observed during practice and in different hospitals. Those who are familiar with the diseases and treatment of the nose, have no doubt observed that the patients frequently complain of the eyes or of the ears or of both. The eye symptoms which I have found to occur as a reflex manifestation from disturbances in the nose, are subconjunctival congestion, lachrymation, photophobia, considerable pain in and around the orbit, more particularly over the brow and down the side of the nose, itching and twitching of the lids, especially the upper. One or more of these symptoms may exist at the same time. The first three seem to occur the most frequently, and generally go together. These symptoms are often treated as primary, not suspecting that the clue of the whole mischief is lying in the nasal cavity, especially if the pathological changes in that locality are not very marked.

The reflex symptoms of the ear, which may arise from diseases in the nose, are, according to my experience, almost as numerous as those of the eye. Tinnitus aurium seems to stand at the head of all, next probably neuralgic pains along the Eustachian tube, and in the middle ear, while vertigo with slight impairment of hearing seems to be less frequent. Other symptoms such as fullness, cracking and snapping sounds in the ear are often present. These are in my opinion, however, not due to reflex irritation, but due through extension of the inflammation from the nasal cavity into the Eustachian tube, causing a thickening of the mucous membrane, followed by more or less closure of the tube, accompanied with a fullness or a "stuffed up feeling" in the ear. The same condition may also cause impairment of hearing.

The inflamed mucous lining of the tube now secretes, and, every time the dilatators of the tube contract, which cause it to become dilated, the patient expereinces a cracking noise every time the partially agglutinated walls of the Eustachian tube separate from one another. To understand how it is possible for the organs of seeing and hearing to sympathize with a diseased condition of the organ of smell, we must first recall the anatomical relation, and the nerve supply between these three important organs of sense.

The nasal cavity is divided into the anterior and the posterior. The anterior nasal cavity extends from the margin of the nostril to the anterior limit of the pharyngeal cavity. It is in the cavity beneath the inferior meatus, where the nasal duct, the canal by which the canaliculi and lachrymal sac are connected with the nose, opens by a somewhat expanded orifice. The nasal nerve, a branch of the fifth pair, supplies the upper and outer part of the septum, the anterior wall of the nasal fossa and the floor of the nose. It penetrates, however, not only into the organ of smell but also into the organs of vision and hearing, communicating common sensibility to the varied textures of these organs of special sensibility. Besides the ciliary, a branch of the nasal, which gives sensibility to the interior of the eyeball, there are a number of branches of the fifth radiating from the orbit to the surrounding parts. The ophthalmic nerve, before entering the orbit, receives filaments of communication from the sympathetic, sends off small branches to all the motor nerves of the eyeball, and gives off a small recurrent branch which passes between the layers of the tentorium. Finally it gives off the lachrymal which supplies the lachrymal gland and the conjunctiva, and terminates in the integument of the upper lid.

This nervous relation, and the fact that the opthalmic is a sensory nerve, in addition to the vascular communication, explains us readily how a pathological condition in the nasal cavity involving the different nerves may produce so many and various symptoms.

Any irritation in the nose, caused either through catarrh, polypi-exastosis caries and necrosis, is liable to produce the above named reflex eye symptoms, by exciting the nearest set of nerves, the impression made is transmitted through the afferent fibrillæ of the nearest set of sympathetic ganglia, and returned through the vaso-motor nerves to those parts supplied by them. It must also be borne in mind that lachrymation may be caused through closure of the nasal duct from a polypus or some other foreign growth.

The posterior nasal cavity extends from the posterior limit of the anterior nasal cavity with the external walls of which it is continuous to an imaginary line passing horizontally under the free border of the soft palate. The Eustachian tube passes from the cavity of the tympanum forward, inward and downward, and opens by a trumpet-shaped orifice into the posterior cavity of the nose. The tube is mainly supplied by the pharyngeal branch of the second division of the fifth nerve, by twigs of the glosso-pharyngeal, spinal accessory and superior cervical of the sympathetic. The ear receives its sensory impressions from a small branch given off from the jugular ganglion of the pneumogastric, which is chiefly distributed to the skin of the posterior wall of the external auditory canal. The auriculo-temporal, a branch from the third division of the fifth, is distributed to the outer surface of the auricle, to the walls of the external auditory canal and to the outer layer of the membrana tympani. The tympanic plexus, principally formed by the glosso-pharyngeal occupies the grooves on the inner wall of the tympanum, and supplies the lining of the middle ear with sensitiveness. Lastly the otic ganglion, formed of motor and sensory fibres of the fifth, and fibres from the sympathetic and glosso-pharyngeal, controls and regulates the reflex and sympathetic relations of the different parts of the organ of hearing to one another, and to near or distant regions of the body. From a distant centre of irritation, such as catarrh, foreign body, chronic proliferations in the nasal cavity, vaso-motor changes are produced through the sympathetic nerve elements leading to distention of the vessels and ultimate inflammation in the lining membrane of the middle ear with extension to the labyrinth. This distention of the vascular supply and swelling of the mucous membrane may give rise to pressure upon the perilymph and endolymph through the fenestræ ovalis and rotunda, and thus cause tinnitus and vertigo. The irritation in the nose may also excite distention of the nutrient vessels of the vaso-motor nerves, which is followed by effusion, causing compression of the fasciculi contained within the unyielding nerve sheath, and will thus give rise to pain. Reflex neuralgic pain in and around the eyeball and orbit is caused in the same manner. In this manner all the various reflex symptoms are produced, the nature of which depends entirely upon the nerve or nerves implicated.

III. On naso-hepatic catarrh.—By Dr. B. S. Arnulphy. —The sympathetic connection existing between the nose and the liver cannot possibly have escaped the host of shrewd and patient observers, who plow and search the ever-widening field

of human suffering. If the matter were investigated, I hardly doubt but some passing hint, some well-defined allusion might be found here and there in the authors anent the subject. As it is, Dr. Laning's paper on "The Clinical Value of Some Reflex Hepatic Symptoms" (CLINIQUE. July, 1887,) seems to be the first formal statement pointing to the relationship between the two organs. It is not the first time that the doctor's keen sagacity of observation has startled us with suggestions of the kind, and I suspect him of keeping in store for us some more surprises.

True enough, I, myself, began to surmise the hidden sympathy between liver and nose some years ago, having had under observation some striking cases to illustrate it, though at the time the conception was so dim in my mind that I did not derive therefrom all the profit I could derive now. Still, by degrees, this idea gained ground in my belief, and it has now become a firm conviction. Dr. Laning's paper delighted me, and while readily acknowledging the priority of his statement, I felt that his remarks, clever and exact though they be, might, perhaps, not prove weighty enough without the endorsement of the clinical test.

All our theories only stand, after all, on the legs of hypothesis; but when those legs are made of such material as facts are woven of, especially when repeatedly observed, there are reasonable chances that the theory is correct.

"The object of clinical medicine," writes Frerichs, "is to concentrate into one focus the results that are obtained from the various modes of investigation, and to reconcile and perfect the one-sided views resulting from the division of labor."

These are golden words. And, in fact, it is to a better understanding of the clinical work that medicine owes its modern tendency to the more inquisitive research of the marked relations between the various organs, the more diligent scrutiny of the morbid processes, and the striving after a more accurate and thoughtful diagnosis.

The difficulties which beset the pathology of the liver are well known; and almost the only knowledge that we have of the influence it exerts upon other organs is that we really know very little about it. Therefore, the least advance that we may make in that direction is of some interest. My object is, consequently, to adduce a few cases from my own practice, wherewith to substantiate the theory of a naso-hepatic sympathy.

*Case* 1.—(Nice, France, 1884.) H. P., forty-one years of age, is a cook and a poor eater, but a heavy drinker of wine and cognac. He complains of dyspepsia, of dull frontal head-

ache, right over the nose, especially in the morning time, and of insomnia. He has dry, nasal catarrh. His nose is often obstructed with gray, dark crusts, which he removes with his fingers. This causes the oozing of a little blood. The nose is slightly swollen; the capillaries are distended and covered with small, blue-reddish patches. On physical examination I find the liver hypertrophied. The renal secretion is scanty, and exhibits abundant brick-dust sediment. I advise the patient to be sober and give him Nux vom. 12. One month afterward he reports great improvement; still, he confesses, that on two or three occasions he has indulged in free potations. The result was that for a day or two afterward he experienced a return of his dyspepsia, of his aching at the root of the nose. He also mentions that the nasal crusts formed more freely at that time, and that an offensive odor, perceptible to his wife and friends, would come from his nose. These symptoms did not last more than two or three days, sometimes less. Nux vom. 30 was again prescribed, with renewed warning to be more careful of his old habit. I lost sight of this patient for a few months, when one day I was summoned to his bedside. I found the poor fellow with all the symptoms of an acute yellow atrophy of the liver, which carried him off in two days more, and in spite of every effort. The end came through a frightful congestion of the lungs, with profuse hemorrhage of a dark fluid blood through the nose and mouth.

*Case* 2.—(Nice, 1885.) M. C. M., fifty years old, is of dark complexion, thin, and presents all the characteristics of the bilious temperament. The temporal and radial arteries are decidedly tortuous and atheromatous. Her father died of hepatic disease; an aunt of hers and two brothers succumbed to spinal sclerosis. She has been for many years a victim to sick headache and stubborn constipation. The slightest error of diet, such as eating mushrooms, the least moral shock, especially at the time of the monthly period, would bring about a severe attack of headache, with painful throbbing about the temples and at the root of the nose; face flushed; photophobia; dry skin; pulse full and frequent; nervous chills and trembling, then copious vomiting of bilious matter would set in. Very often the attack terminated in a slight epistaxis. The next day the patient felt weak, but was up and doing again. Now the interesting feature in this case is that since the time when the menses stopped, a few years ago, there has developed in the right nares a kind of intermittent catarrh, characterized by a watery, acid discharge, a day or two before the outbreak of the sick headache. When I examined the right nasal cavity I found it almost entirely occluded, the

pituitary membrane having undergone a slow hypertrophy of its elements, which was quite apparent at the lower turbinated bone.

There were spells of profuse urination and increased action of the heart, which led me to suspect a degree of interstitial nephritis. The hemorrhoidal veins were often swollen and painful, but very seldom bled. *Lycop.*, *Nux Vom.*, *Plumbum*, 12 and 30, were successively tried with partially good results, from the latter especially. *Podophyllin* 1x trit., acted very well on the constipation, with the aid of daily cold injections of water, but the steady use of *Sanguinaria* and *Chelidonium* not only gave decided relief at the time of the bilious attacks, and considerably lengthened the intervals between them, but the affected nares seemed to feel more free and patulous.

*Case* 3.—(Paris, 1885.) Capt. H. S., forty-eight years of age, is a stout, good-looking man, with vague rheumatic troubles in his family history. He has served several years in the army in Algeria, where he contracted intermittent fever, once had sun-stroke, and several times was troubled with his liver. A few years ago he retired from the army, and lived in Paris to look after his health. Every now and then, after an occasional excess at the table, or from catching cold, he experienced a return of the fever and of the liver trouble. He also noticed that during those seizures his nose always was more or less choked and uncomfortable. One day he sent for me in haste, and I found him shaking from head to foot with a violent chill. The face was pale, anxious; he complained of a dull aching and a fullness in the right hypochondrium, and of nausea. While looking at his tongue, which was coated with a whitish fur, I observed a slightly fetid odor, which I traced to his nose, and on examination I discovered that both nares were obstructed with thick, blackish crusts, which were quite adherent.

The liver was enlarged, and rather sensitive to pressure. The abdomen was bloated, and the bowles were costive, the condition evidently being one of congestion of the liver under the influence of malaria. I prescribed *Arseniate of Strychnia* 3 trit., two grains every half hour until relief should follow. The next morning he was a great deal better, he had vomited bile freely, and passed water during the night; the stomach was still tender and nauseated. I gave *Chelidonium* 3. Two days afterward the patient called at my office, reporting very satisfactory results from the last medicine. The tongue was clean, the bowels had moved, and there was a little appetite.

Curiously enough there had been a slight epistaxis early in the morning of the second day of the *Chelidonium* treatment.

The crusts had begun to fall off easily. On examination no obstruction was to be found, neither was there any perceptible odor.

This patient has had several returns of the same trouble, for which he afterward knew very well how to treat himself. But since then I lost sight of him, and finally heard that symptoms of diabetes having developed, he had repaired to Vichy, where he subsequently died of intercurrent pneumonia.

*Case* 4.—(Nice, 1885.) Mlle. T., one of the cleverest actresses of the Parisian capital, thirty-nine years of age, dark-eyed and haired, alert and active though rather full-habited, was taken ill during a trip to Nice, and called for me, as I had already treated her in Paris before. I found her in bed, feverish and restless, suffering from what she declared to be "one of her attacks." She complained of an intense pain in her right eye, but on close inquiry I made sure that the pain radiated to the eye from the root of the nose, extending upward to the eyebrow and forehead.

The pain was pulsating, paroxysmal, aggravated by light and motion. She had awakened with it, and noticed that the nose was clogged with dried mucus, which had formed during the night. The breath was slightly offensive. The tongue was coated, and the mouth dry. There was considerable thirst and craving for iced drinks. Great sensitiveness in the region of stomach and liver, the latter being somewhat enlarged. The bowels were costive. Every now and then flushes of heat occurred in the head and face, followed by pallor, palpitation of the heart, and by a dull pain in the right shoulder. The pulse was oppressed, rather irregular, 100. She told me that her monthly period was due two days hence, that she had overworked of late, and had suffered much pain in the back as well as in the hypogastric region; that previously on similar occasions mustard foot-baths and purgatives had been prescribed for her without much relief.

Suspecting some catamenial trouble to cause hepatic congestion and sympathetic headache, I gave *Mercury viv.* and *Pulsatilla* 6x, alternately, the latter, despite the thirst, and advised the use of tepid enemata to relieve the constipation. Next day I found her very tired; she had had a bad night, had vomited bile copiously, and passed scanty, highly colored, muddy urine. The pain in the head had abated somewhat, but the face was flushed, and there was a fullness and pressure over the forehead. The nose was in the same condition as before, if not worse; pulse full and heavy, 90. The bowels had not been relieved. Besides all these signs of visceral conges-

tion I distinctly noticed some dyspnœa, long sighs and a short, dry cough, at intervals.

The palpitation had been very troublesome. The hands and feet were quite cold, and irregular chills would every now and then creep along the legs and the back. Disappointed at the failure of *Pulsatilla* I changed my course, and ordered the patient's lower limbs and abdomen to be wrapped in warm flannel. I then prescribed *Magnesia muriatica* 6x, three drops every hour. I called again late in the evening, and she greeted me with a pleasant smile; a great change had come over her. At about 6 P. M. a profuse nose-bleed had taken place, which, owing to the clogging of the nares, had found its way back in the fauces and through the mouth. Many of the grayish, thick, offensive crusts had crumbled away; the head felt quite relived; there was no more cough or dyspnœa; the heart had quieted down, besides there had been a free stool and a copious discharge of clear urine. The liver, however, was still sensitive and congested. I prescribed *Pulsatilla* 3, to be taken every two hours during the night. Only a few doses were taken, because she fell asleep early, and the next morning the menstrual flow made its appearance, carrying away all the remaining symptoms, those of the nose included.

The quick action of *Pulsatilla* after *Magnes mur.* which had so efficiently corrected the condition of the liver is well worth noticing, as it seems highly illustrative of the peculiar obstructive influence that a disordered liver will exert upon the susceptibility of the organism to drug action, and which often persists until the complication is removed.

Mlle. T.'s mother died of diabetes. She, herself, has had several attacks of hepatic colic, and later on had occasional returns of the metastastic catamenial trouble just described, though none nearly so severe.

*Case* 5.—In passing, I will briefly sketch the case of an old sinner, E. B., sixty-five years of age, an inveterate drinker, who presented for a number of years the symptoms of hypertrophic, and then of atrophic cirrhosis of the liver, with ascites, for which parancentesis had been successfully practiced. He lived a year more afterward, having somewhat improved his habits, and then, yielding once more to his bibulous proclivities, was borne off by pneumonia.

This patient was subject, during the last year of his life, to very characteristic attacks of dry naso-hepatic catarrh. The seizure was sudden, generally coinciding with one of his numerous excesses. He would then awaken in the morning with the nose stopped, and have for a day or two a dull pain

over the right eye, and the root of the nose. He had frequent epistaxis at those times. *Nux vom.* and *Lycopodium* 30 always did much to relieve him.

*Case* 6.—Mr. A. M., thirty-two years of age; a business man of this city; is a type of naso-hepatic catarrh, in rather dark complexion; pronounced bilious temperament. When I first saw him he told me that for about three years he was greatly troubled with catarrh of the nose, especially in the summer time. Every month or so he would wake up in the morning with an excruciating pain in the right side of the root of the nose, extending over the forehead, and sometimes as far back as the occiput. Light and motion aggravated the pain considerably, so that he would lie motionless in bed for a day or two, in order to get a little comfort. At the same time his nose was clogged up with dry mucus, and felt parched and burning.

He said that his stomach was always out of order at those times, and that he thought his liver, too, was implicated, as he felt a dull pressure over the right hypochondrium. Besides, he often vomited bilous matter toward the end of the attack. The direct examination of the nasal cavity showed a marked redness of the Schneiderian membrane with slight swelling over the lower turbinated bone. I gave him *Sanguinaria* 3x to take during the acute attack, and *Nux vom.* 30 and *Lycop.* 30x alternated in the intervals.

A few weeks afterward I was summoned during one of the attacks, and had a fair view of the whole case. The description of the patient had been very correct, and I have but little to add to it, save that the face was pale and not flushed, as I thought it would be; that the nose was swollen, and gave forth a rather offensive odor; that the pulse was quick and irregular; the feet were cold and the hands warm, and that there was a little dry cough occasionally. He had considerable nausea and restlessness. *Sanguinaria* 3x was given, three drops every hour, with pretty good effect. The pain abated slowly, but it got decidedly better the next day in the afternoon, when copious vomiting took place. A free perspiration ensued during the night and the subsequent day; the patient being free of pain, the nasal obstruction having greatly diminished, resumed his business. An analysis of urine (sample of the morning when he was at his worst) showed marked diminution of urea, increased proportion of lithic acid, and a few crystals of oxalate of lime.

I then advised him to take *Lycopodium* 30x three granules every three days until the next attack. This did not recur for two months, when I tried *Chelidonium* 3, and

with some success, the trouble lasting only twelve hours, the nasal symptoms being much less marked, and no vomiting taking place.

I then gave the patient explicit general directions as to diet, bodily exercise and functions of the skin. I urged him to adopt Jæger's woolen sanitary system of clothing, and instructed him *in proper nose breathing*. The all important influence on the circulation of the lungs and of the liver is very much overlooked by the majority of practitioners. Besides I warned him that I was going to try a new medicine for his case, and that I expected he should report faithfully. *Lithic acid* 6x trit. was prescribed, two grains a day. There was a slight attempt at an attack five weeks afterward, which lasted only a few hours, and dwindled away without any medication, and none since, three months having now elapsed. *Lithic acid* has been taken pretty regularly. The general health has been considerably improved.

I must state here that there is quite a family history behind this case. The grandfather had gout or bladder disease; the father died of some renal affection; the mother has had to contend with both her liver and kidney, and the patient himself has had some slight attacks of muscular rheumatism. His urine was at times scanty, with abundant red sand deposit, at other times quite profuse and colorless. Though leading an active life in a business way, he did not take the proper amount of bodily exercise, and of late years his digestion had become impaired, his bowels sluggish, and his liver torpid, the very conditions conducive to *lithæmia*.

Clinical reflections.—The clinical inferences to be drawn from the above cases are that the hepatic disorders capable of awakening a distant sympathy in the nasal tissues are manifold, and may vary from the mere metastastic and material congestions, such as observed in Cases 2, 3 and 4, to the deep lesions of cirrhosis. Among the intermediate degrees, Case No. 6 is especially instructive, as may be inferred from a careful study of the general condition that the blood-making functions of the hepatic gland were involved.

Some of the symptoms we have repeatedly met with in the foregoing cases deserve particular attention. It will be noted that the form of *nasal catarrh* alluded to generally develops abruptly, mostly during the night; that the patient on awaking in the morning finds his nose choked with dry, adhering crusts, and that this condition will disappear rapidly as soon as the liver resumes its function. Occasionally there may be an acrid, offensive, watery discharge. This is a pretty constant feature of these cases. It is not by far the unbearable

stench of old victims of ozæna. It seems to me to be quite comparable to the foul breath of oxaluric patients, or to the peculiar odor which characterizes the cutaneous exhalations of some people, especially from the axilla and the feet. In both instances this symptom depends upon the elimination through the pulmonary or the cutaneous surface of imperfectly oxidized fatty volatile acids, as a result of the slackening of the nutritive combustion.

The *headache*, which is so pronounced a feature of the naso-hepatic catarrh, we have observed to be generally situated at the root at the nose, particularly on the right side, close to the inner angle of the eye, whence it radiates to the corresponding eyebrow and frontal region, reaching to the vertex and sometimes to the occiput. It is throbbing, paroxysmal, apt to be very severe, always aggravated by light and motion.

It appears to be dependent on the obstructed condition of the nose, and I may fitly compare it to the peculiar intra-orbital or supra-orbital neuralgia, which so often reflexly develops in connection with a diseased state of the lachrymal duct—a well known circumstance to the oculist.

As to the *nasal hemorrhage*, which we have seen in Cases 2, 3, 4 and 5 to supervene as a critical sign, marking the termination of the attack, it has been long ago recognized as symptomatic of hepatic disorders. It is very frequent in cirrhosis, and it cannot be argued that this is due to the mechanical obstruction of the portal system, because the hemorrhoidal veins which belong to that system hardly ever in that disease give rise to any flow.

In fact the diagnostic value of epistaxis in hepatic disorders is such that, according to Mouneret, one could safely differentiate an obscure ovarian cyst complicated by ascitis from a cirrhosis through the mere proof afforded by an attack of nose-bleed. Let us, incidentally, point out, as a pathological curiosity, the double reflex between the uterus and the liver, and between the latter and the pituitary membrane furnished by Case 4.

The tendency to an *hypertrophic process* was well marked in Cases 2 and 6, and it is a significant element of the disease. In Case 2 it had resulted in a total obstruction of the right nares. The question therefore arises whether some of the hyperplastic growths which affect the nasal fossæ could not be traced to the hepatic influence.

As yet the etiology of these tumors is quite mysterious. And is it not a suggestive coincidence that the *fibrous polypi of the naso pharyngeal* passage should so seldom affect the women until *after the climacteric*, while these growths are so

common with men in the prime of life? Might not the catamenial function, through its depleting action on the liver, throw a little light on the matter?

It will be remembered that in some cases a dry cough was present. *Cough* as a reflex hepatic symptom is as yet very little known, though to my knowledge there exist numbers of facts plainly illustrative of its reality. I have witnessed cases where the hepatic cough was so severe as to cause vomiting.

A striking example of pneumo hepatic reflex is recorded by Rendu. One of his patients, a naval officer who for years had lived in Cochin-China, presented all the subjective signs of tuberculosis; emaciation, persistent dry cough, diarrhœa, night sweats, cachectic appearance had set in progressively; auscuation was negative. *The liver was neither enlarged nor painful.* A month afterward there supervened repeated purulent evacuations through the bowels. The cough ceased abruptly, and a week afterward the patient was another man. It cannot be disputed for one moment that this was a case of abscess of the liver, which found its relief and its cure through the digestive canal.

Let us mention, as concomitant symptons of less value, the *cold hands and feet*, a general *tendency to chills*, and *a bruised pain in the right shoulder.*

Last, but not least, we must note the frequency of *urinary troubles* in the foregoing cases, especially the abundant brick-dust doposits of uric acid and the lithates.

But before we proceed to the therapeutical views, which will close the paper, I feel I must corroborate by means of a few more facts the theory of the *naso-hepatic reflex.*

The influence of copious meals, rich diet and hearty libations on the general appearance of the nose is well known, and no doubt it is through the liver that the change takes place. Here is a suggestive instance of the fact. Burgundy is the region of France where the consumption of red wine is largest. It is the region also where the most pronounced forms of elephantiasis of the nose are frequently observed. Some of these tumors reach an enormous size.

In one case recorded by Thenlot the tumor weighed five pounds, and had to be operated upon, because it prevented the bearer from talking, eating and breathing. These prodigious tumors are characterized by a general hypertrophy of all the elements of the derma. Curiously enough, the anatomo-pathological study of those growths always present this peculiarity that they remain wide open, artery-like, on a section of

the diseased tissue, just as the *hepatic veins* do in the liver. These tumors are never malignant.

The animals on that score do no better than man. Dr. Pupier (*Comptes-rendus al' Academie des Sciences*, 1872,) cites some remarkable experiments which he observed on chickens. Some of these fowls, having been for a few months freely given red wine, developed enormous crests, that stood up red and turgescent, while their mates that had only been allowed a little diluted white wine tamely strutted about with pale and withered crests. The liver of the former fowls was found altered. It will be remembered that the crest is an ornamented exuberance of the pituitary membrane.

It is not only in clinical and experimented pathology that we find distinct proof of the naso-hepatic sympathy, but also in the stern field of comparative anatomy. Thus, if we study the development of the biliary and of the olfactory organs in the animal series, we find a harmonious parallel between them. Echinoderms, for instance, which are the first beings in the scale of organized life, where a rudimentary liver may be discerned in the digestive apparatus, are precisely those wherein the olfactory function begins to be dimly manifested. Somewhat higher in the series, the gasteropod mollusks, which possess a voluminous ramified liver also exhibit a well-defined olfactory power.

Correlatively, if we admit of a naso-hepatic reflex, and the inference seems to rest on pretty sound scientific basis, we must admit that the nose through the olfactory nerves is able to affect the liver. If we stop to think of the classical reflex, by means of which the pleasant aroma of a savory dish excites the free secretion of the salivary glands, we are warranted in inferring that the same reflex may reach the liver, which in a sense is a gland annexed to the digestive apparatus. No doubt, therefore, judging by analogy, that certain classes of odors may modify the secretion of the bile, and thereby the general health. This hypothesis is worthy of investigation. Now, what is the nature of the naso-hepatic reflex? I quite agree with Dr. Laning, who believes it to be of a trophic character, and under the control of the sympathetic nerve. The hypertrophic, hyperplastic lesions we have studied, the rapid modification of the nasal secretions, all, not excepting the naso-frontal neuralgia, are confirmatory of this view. By the way, since I have to deal with that much-talked-of class of phenomena, the reflexes, I may dwell upon it a little longer and insist that we should be very careful not to confound these vital, active, essentially dynamic acts with passive and

mechanical ones, inasmuch as misapplication of language would tend to confuse ideas, and to breed wrong use of facts.

Such is the error, wherein, it seems to me, our learned confrere, Dr. Laning, has suffered himself to fall in his paper on "*Clinical Reflexes*" (CLINIQUE, September, 1887). Referring to the various functional disturbances that a weak right heart may create in the abdominal organs, tributary to the portal system, he designates them as reflex troubles. I know of a few remarkable cases, recorded by Prof. Potain, of Paris, wherein hepatic diseases have reflexly caused palpitation, hypertrophy, and even alterations of the tricuspid valves, but I never heard of a reflex nervous influence of the heart on the liver.

True enough, cases are on record of mitral stenosis wherein the hepatic phenomena seemed to dominate the cardiac trouble; cases wherein ascites, enlargement of the liver and various dyspeptic symptoms may be present though the valvular lesion be yet well compensated. It is not on such rare and obscure cases that any plausible presumption of a cardio-hepatic reflex can safely be founded.

It is obvious that the disturbances cited by the Doctor, though clinically well interpreted, are simply mechanical, and manifestly due to the lack of *vis a tergo* in the general venous circulation as an unavoidable result of the debilitation of the heart-muscle. Such cases are no more of a reflex nature than are palpitation and dyspnœa after a heavy meal through distention of the stomach by accumulated gas; no more than the severe neuralgia which some women experience in their lower limbs through compression of the sacral nerves by the gravid uterus; no more than the hypertrophy of the liver, and dyspeptic troubles observed in rachitic subjects affected with thoracic deformity, and compression of the right heart by chondrocostal nodosities.

And again, I would like to know by what wizard-like process of diagnosis the learned Doctor has come to clinically differentiate a weak right auricle from a weak right ventricle, prescribing *Gelsem.* for the former and *Eupat.* for the latter? I flatter myself of possessing a fairly educated ear, but I humbly confess that I never achieved such a feat of stethoscopic prowess; so that I am sure not only myself but the profession at large would be grateful to the Doctor for unraveling his secret.

It is time I should say a word about the remedies which seem to cover the peculiar pathological sphere under consideraiton. *Lycopodium*, *Nux vomica*, *Sulphur* will be found generally useful in ordinary cases, when no distinct morbid cause

is at work, such as malaria (Case 3) and metastasis (Case 4). The field covered by these far-reaching agents is so wide, and their action, so well known that I deem it better to leave their special indication to the individualizing sagacity of the clinican.

Of *Chelidonium*, something more definite can be said. I think it efficacious in those obscure hepatic troubles that seem connected with a depraved nutrition, nausea, vomiting of bile, paroxysmal pain at the root of the nose, right scapulalgia, critical epistaxis, nasal obstruction worse in the morning, which seem to me characteristic of its indication.

*Sanguinaria* acts very much in the same way, and is more adapted to those cases where the naso frontal pain extends to the vertex and occiput, and is distressing and aggravated by the slightest light and motion.

*Plumbum* will be found a great remedy in pronounced torpidity of the liver, with recurring hepatic congestion of a low type, when there is evidence of an *atheromatous condition of the arteries*, of disturbed renal secretion, especially nocturnal polyuria, and of abundant deposits of lithic acid in the urine. The indication would be still more useful should there be the signs of chronic aortitis, of angina pectoris, and of aortic valvular disease. This suggestion will appear less singular if we remember the peculiar accumulative affinity of the hepatic tissue for the metals, and the characteristic lesions it exhibits in the victims of lead poisoning.

*Lithic acid** was the last remedy prescribed with apparently great success in Case 6. True enough the hygienic measures instituted at the same time must share the praise in no trifling degree. However, I have ground to believe that this new comer in the field is endowed with considerable activity. Case 6 is not the only instance to my knowledge wherein it has yielded satisfactory results. I have a few cases on record illustrating its unsuspected virtues in a special morbid sphere. They will be published and commented upon in due time. As yet all I know of the therapeutical properties of *Lithic acid* is purely empirical, no provings having thus far been made. Still, as an outcome of personal observation, I may venture to state that whenever, through imperfect metabolism of the albuminoid principles, the organism has been suffered to drift into the complex morbid condition characterized by sluggishness of the liver, habitual stasis and paroxysmal congestion of the portal system, lack of appetite, constipation, hæmorrhoids and lateritious sediments in the urine, and especially

*Triturations of *Lithic acid* will be found at Halsey Bros., 27 Washington Street.

when recurrent attacks of vomiting of bile, naso-frontal neuralgia dry nasal catarrh are present, *Lithic acid* 6x and upward may be confidently prescribed. It may perhaps prove more advisable to administer *Chelidonium* or *Sanguinaria* during the paroxysmal outbursts, and *Lithic acid* in the interval.

Duly mindful of the success which I had in treating oxaluria with *Oxalic acid*, I was logically led to experiment *Lithic acid* in Case 6, because the general condition of the patient was, to all appearances, one of lithæmia. The analogy is obvious. Is it not worthy of our consideration that *Oxalic acid*, which is, though in minute proportions, always present in the blood, and therefore one of its constituents, but doomed to be constantly destroyed by the process of nutrition, should cure oxaluria when that process comes to be impaired? That *Phosph. acid* should cure phosphaturia? That *Calc. carb.* should prove so effective in biliary lithiasis, where through elective affinity it seems to check the excess of *lime* in the bile which causes the precipitation of cholesterine and the formation of calculi?

While pondering over the many deductions which these and other facts seem to call forth from the depths of the reasoning and scheming animal that lies inside each of us; while listening to the sundry shifting fancies that would every now and then flash over my mind with only enough drapery of plausibleness to intensify suggestiveness, like the ballet girls of the thought, as it were, I felt as if some new and deep problems slowly came into pale outline from a distant land.

And, loath as I am to indulge in rash and precipitate generalization, I cannot help thinking that there will be found to lurk behind these as yet isolated facts a law—perhaps only a sub-law of similarity—the knowledge whereof might be fruitful of magnificent therapeutical results.

IV. The medical treatment of nasal catarrh.—By Dr. W. S. Gee.—The selection of the suitable remedy for a patient suffering from nasal catarrh is not always easy. The result is quite satisfactory when the patient is a close observer, and experiences peculiar pronounced concomitant symptoms which aid in the necessary individualization.

The uncomplicated case of nasal catarrh is difficult to cure from the location of the disturbance, and the frequent recurring exciting cause.

Two kinds or varieties should be recognized, viz.: acute

and chronic. For the acute a group of remedies should be recalled with their differentiating points, chief among them is Nux Vomica.

*Nux Vomica* when there is tingling in the nose; dry or fluent during day and stopped at night; heat in head and pain in forehead; patient is chilly, especially on moving; thirsty; languid; cross; disgusted because of the cold. The restless, hardworking business man who "has not time to be sick." Later there appears a raw scraped feeling in nose and throat; better in the open air. The internal surface appears red and inflamed.

*Am. carb.* when same symptoms are present viz.: stoppage of nose at night and relief during day, but patient is sensitive to cold air; must stay in the warm room because he gets so chilly in the open air. *Nux Vom.* is frequently given when *Am. carb.* is the remedy indicated.

*Gelsemium* is very frequently indicated: Colds from change of weather; damp weather; languor; sneezing; shuddering; chilliness especially up and down the back; feverish but no thirst, which is surprising, hence important; fullness at root of nose; head feels big and full.

*Kali. iod.*: Violent acrid coryza from the least cold; alternate heat and chilliness; tightness at root of nose; acrid watery discharge, especially in the syphilitic patient.

Other remedies have been used including *Acon.*, *Ars.*, *Merc.*, *Dulc.*, *Rhus tox.*, *Bell.*, but their symptoms do not occur as frequently as the indications for the above remedies. For chronic nasal catarrh the long deep acting "Antipsoric" remedies of Hahnemann will be needed if we wish to more than palliate or transfer the difficulty.

Catarrhal inflammation may occur wherever mucous membrane exists, and from the same cause in each part affected. This *chronic* state depends upon a dyscrasia emanating from one or more of the chronic miasms described by that great teacher.

The nasal annoyance is but one expression of that undercurrent cause which must be reached to secure perfect health.

Constitutional symptoms are of great importance, and the full history will give the tendencies in the individual case. When local symptoms are so pronounced as to enable us to select a remedy, the following are more frequently indicated:

*Kali bichrom.* —Nose obstructed by large slugs, clinkers of greenish, fetid, hardened mucus. At times a cast of the nasal cavity will thus appear. Rapid exfoliation and ulceration; loss of smell; disgusting odor; perforating ulcers are seen on the septum or elsewhere; right side most affected; distress and fullness from inflammation of frontal sinuses; worse mornings and on going into the open air.

*Kali. carb.* in action resembles the above, but has more of the hemorrhagic feature as manifested in the blood-tinged mucous discharge; nose-bleed, excoriating, acrid greenish mucus, making nostrils sore and crusty. You will recall that unique peculiarity of this remedy—the menstrual blood excoriates, developing an eruption on the thighs. Acrid bloody discharge in catarrhal conditions with greenish mucus, should remind us of *Kali. carb.*

The nose is obstructed, making breathing almost impossible. This patient, like the above, is chilly outdoors, but strange to say, the nose is *relieved in the open air*, and becomes obstructed again on entering a warm room.

Under *Kali. bichrom.* the fullness, distress and obstruction are *worse* in the open air.

*Merc. iod. rub.* (*Biniodide*)—This is a remedy apparently best adapted to chronic catarrh affecting the posterior nares. The nasal bones and turbinated bones become involved. A raw, excoriated feeling is experienced, and a dropping of mucus which occasions much hawking. (Spig. when it causes choking at night.) The nose, ear and other head symptoms are on the right side, while in the throat and below the left side of the body is acted upon by this remedy.

*Merc. iod. flavus* (*Protoiodide*) has similar symptoms, but the locations are reversed, and the discharges appear the color of the crude drug. The *thick yellow coating on the back of the tongue* (*Kali. bich.*) gives another hint.

*Aurum met.*—This remedy corresponds to the ozæna with excessively fetid discharge; caries of the nasal bones; burning, itching, smarting; soreness in nose, which is sensitive to touch. The putrid odor is recognized by the patient, although that sense is very much impaired. A most despondent condition grows out of it; the patient bent on committing suicide. The frontal headache almost drives him to distraction. The caries extends into cheek bones, and the same tearing, boring accompanies. Sensitiveness of the zygoma and malar bones; bony destruction about the ear, obstinate otorrhœa as concomitant symptoms.* This weary, distressed patient may be

*Catarrh of the rectum, the vagina, bronchii and elsewhere.

greatly relieved by giving *Aur. met.* in the crude, externally, and in the potencies, internally.

*Pulsatilla* must not be forgotten in the treatment of this class of troubles, for its symptoms occur frequently. In the submissive, tearful patient, suffering from nasal catarrh, we find: Loss of smell (and taste), bad stench from nose, *yellow-green* discharge. Green fetid discharge; thick, yellow, bland discharge. Nose-bleed, suppressed menstruation, bad taste in morning, relief outdoors and aggravation from heat, and other general characteristics of the remedy.

*Sticta pulmonaria.*—This remedy meets a different set of symptoms, and has proved to be of great value when indicated. The leading and most annoying symptom is the *dryness* of the mucous membrane of the nose (*Senega* also). This dryness gives the constant inclination to blow the nose or bore into it to dislodge a fancied accumulation, but no discharge results. If secretion is present, it dries rapidly, forming scabs difficult to dislodge. General feeling of dullness and malaise and the other common symptoms. The reflex dry cough also. In two chronic cases the above symptoms were prominent, and the remedy acted promptly.

This list includes the remedies found indicated most frequently when local symptoms are sufficient to decide the choice. Others may be included, as *Sulph.*, *Hep. sulph.*, *Graph.*, *Cal. carb*, and a host of others. One of the most obstinate cases, of thirty-six years' standing, was cured with *Rhus tox.* because of the probable exciting cause and present symptoms.

Polypi of the nose have been cured with remedies, by removing the cause of them—as only the well indicated remedy *can* do—and although others *may* remove them; these three have cured them.

*Sanguinaria* when, in addition to the fluent coryza with frequent sneezing and loss of smell, there are the asthmatic rose-cold symptoms, nasal polypi, and the characteristic sick headaches, uterine polypi, and climacteric disorders.

*Phosphorus* when the polypi bleed easily from touch or blowing the nose, profuse discharge of green or yellow mucus from the nose chronic tendency to cough and hemorrhages.

*Teucrium marum verum.*—This remedy has no special indications aside from tingling in the nose, frequent sneezing, ozæna, with foul breath; but in the absence of other deciding symptoms it should be given a careful study and trial.

In the 3x it has frequently cured this annoying trouble. Change the soil and the weed will fade away. Unnatural conditions disappear when the cause is removed.

*Remarks*—In *Sticta pul.* we have a remedy which meets the common symptoms of the so-called "atrophic" form of catarrh. The *dryness* is a very annoying symptom. We must not, however, prescribe the remedy because we believe the case to be "atrophic," but because of the "dryness" and *other symptoms.* We may *think* the dryness due to atrophic changes, but the same symptom may be produced in other ways through the possible nervous disturbances as, for instance, under *Bell.*, where dryness occurs as a prominent symptom also but from an opposite condition. Take *all* the symptoms and select the remedy producing similar on the healthy. To reproduce the "peculiar, prominent, uncommon" ones first shortens the work of the selection of the appropriate remedy. To determine which are primary and which reflex symptoms is of importance, but this is many times impossible. The aid afforded by the action of the curative remedy enables us to give a correct dignosis, as the symptoms which appeared last in the disease, disappear first under the action of the *curative* (not palliative) remedy. The reflex disappear before the primary symptoms. A careful history will often give us this help by noting the *order of appearance* of the many symptoms, their persistence, etc.

As stated above nasal catarrh is only one expression of a constitutional disturbance. Such a patient usually suffers from other disturbances alternately or at the same time. Not infrequently we find co-existent, periodical headaches, leuorrhœa, neuralgia, acne [see November 26, 1887, *Medical Record*], eye and ear diseases, asthma, attacks of diarrhœa or constipation, "bilious attacks," etc., and to consider one alone as primary and the others reflex leads us into error and makes us likely to overlook a part of the case. We may see how some disturbances *may* exist reflexly from others, but *do* they in the given case? We have the *symptoms*, let us remove them and the patient *will* recover.

# Miscellaneous Items.

Our readers will not complain of Prof. Hall's very practical report contained in this issue.——The Hahnemann Class deserves a holiday.——Drs. Lucy Waite and Clara W. Peaslee have opened a Gynecological Institute in Hyde Park.——Prof. Laning has had an attack of phlebitis, but is alive again.——Prof. Fellows and all his friends are happy over the recovery of his daughter from a violent attack of diphtheria.——The eye and ear clinic is full to overflowing.——The year ends with the loss of two of our old and valued friends, Dr. Lafayette Macfarland, formerly of Boston, who died October 30, aged sixty-three, and Dr. L. M. Kenyon, of Buffalo, who died Novembe 25.——If R., who doubts the possibility of the vomiting of gall-stones, will consult the London *Lancet* for November 12, page 961 he will find that it has occurred repeatedly.——If the printers do not miscarry again, Prof. Ludlam's Diseases of Women will be ready for delivery at full term within the next fortnight.——The Clinique wishes its readers and correspondents a very Happy New Year.

Valedictory.—The closing issue of another volume is the occasion for congratulation to all concerned. Eight years have passed since this publication was begun, at which time the following reasons were given for its establishment: (1) The dawn of the clinical era in homœopathy ; (2) The desire to contribute to the progress of the healing art by a series of gleanings of the most practical kind ; and (3) the duty of placing the records of a number of flourishing clinics within reach of the hundreds of physicians who have drunk at this fountain before, as well as of those who have not been so fortunate.

The volume for 1887 contains *thirteen* clinical lectures; *twelve* reports to the Clinical Society, which include *fifty-six* papers with discussions thereon; *one hundred and thirty* clinical cases from hospital and private practice; beside a brace of introductories and valedictories, translations, reviews, hospital notes, etc., etc. The reader can easily determine if it is to his interest to renew his subscription. Those who wish to do so will please communicate with Dr. E. S. Bailey, 3034 Michigan Avenue, Chicago, *at once.*

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